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ABSTRACT

Designed to provide a generalized description of the scope and content of the courses currently offered in a sampling of leading library schools, this report is based on information submitted by 9 of the 15 library schools that were identified as top schools in a survey of library educators and administrators. The analysis of the schools' submissions focused primarily on masters' programs, with special attention to the relationship between what is being taught and what academic and research librarians feel should be taught. Because the schools submitted information in a variety of forms and varying degrees of completeness, a strictly quantitative summary was not possible. Topics discussed include: (1) traditional scholarly subjects; (2) traditional academic skills, including communication skills, foreign language skills, mathematical skills, and use of courses outside the school; (3) training in other professions; (4) traditional bibliographic skills, including cataloging and classification, reference and information sources, management and administration, general introduction to library and information science, and other required areas; (5) specialization in academic and research librarianship, including responsiveness to current developments, the expressed needs of the field, and continuing education; and (6) creativity and the ability to solve problems. (KM)

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LIBRARY SCHOOL PREPARATION FOR
ACADEMIC AND RESEARCH LIBRARIANSHIP

A report prepared for the Council on Library Resources

Lester Asheim

November 1983

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Introduction

The impetus for this survey came from discussions at a meeting of university librarians and library school deans in early 1983. The discussions revealed a conflict of perceptions, between library educators and librarians in the field, concerning the relevance of current library education to current library practice. It was suggested that it might be useful to describe, in a generalized way, the scope and content of the courses currently offered in a sampling of leading library schools, with special attention to the relation of what is being taught and what academic and research librarians feel should be taught, in order to supply them with the kind of qualified staff that current practice requires.

The Council on Library Resources undertook to instigate such an investigation. To that end, an informal letter was sent to the deans or directors of ten schools asking them to submit current catalogs and other already-available material related to the school's program of preparation for academic and research librarianship. Existing course descriptions, syllabi, reading lists, and similar relevant materials were welcomed, but the schools were not expected to generate special information for the project.

The sample schools are all among the 15 top schools identified by library educators and library administrators as the "best" in Herbert White's widely discussed survey,¹ and eight of them are among the top ten. All of the schools that were approached offer programs leading to a master's degree accredited by the ALA Committee on Accreditation; all also offer a

doctoral program. This is not a random sample; rather, it would be fair to say that the programs offered by these schools are among those most likely to be highly responsive to current needs in the field. Conversely, if there are notable weaknesses and failures in the programs described here, it is unlikely that many of the other library schools throughout the United States are much better.

Nine of the ten schools submitted information, in a variety of forms, and in varying degrees of completeness. Some sent only a catalog; some sent syllabi for a few courses; some actually gathered together a great deal of information and even compiled specific data for the purposes of the study. It is thus not possible to do a strictly quantitative summary of the submitted material. The present report is based on as much information as it was possible to glean from the miscellaneous materials, and in some cases relies on impressions and subjective judgements of the surveyor as much as on documented or verifiable data.

The analysis of the schools' submissions focused primarily on the master's programs. The materials reviewed included: all courses required for the degree; all optional courses directly related to academic or research libraries; all optional courses which contain content useful for academic or research librarians although not limited to that type of library; and all courses dealing with specialties of value in the academic or research setting, as for example "Music Bibliography," "Archives Management," "Preservation of Materials," etc. Only if a course were exclusively dedicated to another type of library - "The Public Library," "School Library Management" - was it omitted from the analysis. In other words, this report examines all of the material in each school that would be applicable for a student preparing for a career in academic or research libraries. This does

not mean that every graduate of a given program would have taken every desirable course listed in the catalog, but it does summarize how wide a range of pertinent possibilities is now (1983) offered in a library school curriculum.

For a set of criteria with which to test the relevance of today's library school programs to the needs of today's academic and research libraries, this study turned to the recruiting brochure published by the Association of Research Libraries, "Careers in Research Libraries." The qualifications identified in the brochure were used as general categories into which to organize the data presented in the materials supplied by the schools.

The brochure lists the following desiderata under the heading "Who should become a research librarian?":

- A thorough grounding in traditional scholarly subjects - any of the sciences, social sciences, and the humanities
- First-rate traditional academic and bibliographic skills
- Management skills and managerial talents, including specifically
 - financial administration
 - personnel management
 - systems analysis
 - marketing
 - strategic planning
- Creativity and the ability to solve problems
- Training in the professions, such as law, health, engineering, computer science, and the innumerable subspecialties of these fields

The list is not so different, in essence, from the ideal long held by library schools and reflected in the COA Standards for Accreditation. There is a bit more emphasis on administration and management, but by and large it reaffirms the importance of the traditional basics in library education,

identified by Martin Cummings as the "Three C's: Collect, Catalog, and Communicate," to which he now adds a fourth C: the instrument for achieving the first three, the Computer.² This study takes the New Technology for granted, and in examining the schools' programs as they relate to the qualifications identified by ARL, looks for evidence that the applications of advanced information technology are included in each category where they would be relevant.

Traditional Scholarly Subjects

While the library schools may be responsible for guaranteeing that their graduates possess a grounding in traditional scholarly subjects, it is not expected that the library schools themselves will provide such preparation within their own curricula. The screening of applicants for admission on the basis of their pre-professional background is meant to serve the purpose; the library school degree, in a sense, is seen as a warrant of appropriate preparation at the undergraduate level as well as in the professional program.

This reliance on undergraduate schooling to encompass traditional scholarship is reflected in the library schools' requirement of the degree from an accredited undergraduate program for admission; in their discouragement of undergraduate course work in library topics because this would reduce the amount of general education; in the establishment of minimum grade point averages in undergraduate work; in the requirement of "acceptable performance" on certain tests of general background and aptitudes; and in a check of the applicants' undergraduate transcripts to ascertain the spread of course work in the sciences, social sciences, and the humanities. Highly specialized undergraduate majors, in home economics or the

performing arts, for example, are often considered less desirable preparation for admission to a library school primarily because they are seen as concentrating too soon on the narrower specialization at the expense of the traditional, "liberal" background.

All nine of the schools in the sample require the bachelor's or baccalaureate degree for admission. Two of them specify that 90 hours of the undergraduate work must be in liberal arts, or be "exclusive of professional courses." One school raises this to 96 hours of liberal arts, while another spells out "general education distributed among the social sciences, biological and physical sciences, literature, and other areas of the humanities." The other five schools are less specific about the content, presumably accepting the bachelor's degree in itself as representing this kind of general background.

All the schools require a B average in undergraduate work or (in the case of 5 of the schools) in the last two years of undergraduate work. Six of the schools require a record of the applicants' Verbal and Quantitative Aptitude scores on the Graduate Record Examination; one of these specifies a minimum combined score of 900; two others, of 1000; the other three do not publish a cut-off score. One school does not require the GRE at all; another requires it only of those who do not have a 3.0 grade point average; and one "may request" that the applicant submit scores (presumably where the general academic record raises some questions).

As can be seen, the quality control implied by ARL's "thorough grounding" may not be as stringent as these words suggest. All of the schools permit some provisional or probationary admission where the grade point average doesn't quite reach 3.0, or where a combined GRE score is something less than the cut-off specified in the catalog. The Standards for Accreditation,

as a matter of fact, condone such flexibility where the combination of factors suggests that the applicant should be given the chance to prove capabilities not reflected by the strictly numerical indicators. Letters of reference receive as careful consideration as the purely academic record, particularly if they come from supervisors of an applicant's work in a library (even at the preprofessional level), or from persons whose knowledge of academic requirements at the graduate level qualifies them to judge the applicant's potential for successful performance in the school's program.

Today's increasing demand for a higher level of specialization in other subjects is reflected in the ARL's listing as a desirable qualification: training in law, engineering, computer science, and other such fields. This raises a question about the "grounding in traditional scholarly subjects," since that is not necessarily a requirement in some of these fields. The library schools are torn between the presumed need for a high degree of subject specialization on the one hand, and the continuing call for "generalists" on the other. Since both are acceptable in the field, and since subject specialization is sometimes the more important criterion for many positions, the schools feel pressed to be open to both kinds of candidates for admission, using as the major screening device the student's undergraduate grade record and the possession of the B.A. degree. In other words, the screening process is handled to a great extent at the undergraduate level; the admission process of the library schools accepts that judgement at face value. None of the library schools in the sample interposes any further examination of the thoroughness of the applicants' grounding in traditional scholarly subjects, beyond the GRE.

Traditional Academic Skills

Presumably these skills would cover the ability to express oneself well orally and in writing, to have at least a reading knowledge of a foreign language, and to have a basic facility in mathematics. Reliance on an undergraduate transcript is a far from stringent screen of these skills.

Communication Skills

Four of the schools require a written statement from the student concerning his/her academic and professional plans, interests, or objectives. This gives a rough gauge of the applicants' ability to express themselves in writing, but it is probably used as much as an indicator of professional commitment as of the background of liberal education. Only one school requires a personal interview (by the Dean or Dean's representative, which suggests that interviews may be held off campus); one other suggests that the interview is "desirable," but apparently not required. Three schools indicate that they "may ask" for a personal interview; one other will conduct a personal interview if the student requests it; the other three schools make no mention of a personal interview. It would appear that high levels of verbal skills, either oral or written, while they may be desirable, are not rigidly tested as an essential requirement for admission. This may be, in part, because no really effective but manageable means has been found for adequately testing them. One school has found, for example, that personal interviews are more likely to mislead than to help in screening; verbally adept applicants can create a favorable impression during a short interview which reveals none of the important reservations that are often suggested by the academic transcript or in letters of reference.

If the library schools included in their own programs additional promotion of oral and written communication skills, the absence of formal

entrance screening might not be so serious from the standpoint of the field. Only three of the nine schools, however, require a master's paper or thesis for graduation. One additional school permits a paper as one of three options (with field work or internship as the alternatives). Four other schools offer the writing of a paper as an elective, but if reports in other contexts are applicable to this sample as well, few students elect it.

Written examinations [in my experience] are seldom monitored very stringently on the student's writing skill. The pressure of time under which students write a test precludes their rewriting or proofreading, and the examiner takes this into account in evaluating test performance. The normal emphasis is on the evidence the student gives of knowledge of the subject matter; seldom is the ability to express that knowledge gracefully and well a requirement for a passing grade. While a well-written answer may subtly influence the reader's evaluation, it is substance, not style, that is being graded.

It is true that term papers, or oral reports, are often assigned in some of the courses in all of the schools. It is not possible to tell from the materials supplied to what extent grammar, organization, and felicity of expression are analyzed and criticized for the benefit of the student. Students who already perform well in writing or speaking have an advantage, but if my observations over the years continue to apply to the present situation, talks and term papers do not receive the kind of criticism from the instructor which is designed primarily to lead to improvement of the students' communication skills. Certainly revision and rewriting are not a normal part of the writing of a term paper, as they are for serious writers. If the facts are essentially correct and responsive to the question or the assignment, a good passing grade is usually assured.

Foreign Language Skills

In only one school in the sample is a foreign language a requirement for admission, although it is a requirement for graduation from three of the others. Five of the schools impose no foreign language requirement, although 9 of the 39 openings advertised in the C&RL News (see p. 34 below) mentioned at least one foreign language as a requirement. Four of the advertisements were for cataloging positions; 5 were for reference positions. The problem for the schools, of course, is that the language wanted is not necessarily one of the traditional Western ones (the advertisements mentioned Slavic, Cyrillic, and Japanese, for example), so the imposition of a language for placement purposes cannot be justified by the market. The idea that language facility is a good in itself - the mark of an educated person, not a job skill - seems to have vanished from higher education generally, and librarianship reflects that trend.

Mathematical Skills

Some recognition of the importance of basic mathematical and statistical skills does appear in the library schools' programs, in part because of the increasing need for such competencies in computer use and in administration. While the GRE score on Quantitative Aptitude is part of the admission procedure in six of the schools, it must be recognized that the total cumulative score is the basis for an admission decision, and that this is often achieved by a better than average Verbal score which counterbalances a low Quantitative score.

Only two schools mention the central importance of mathematics. One considers it a special admission criterion, putting it with "knowledge of formal science (e.g., mathematics, statistics, logic, computer science)."

The other provides as a requirement for the degree its own course, "Basic Mathematics for Information Science" or equivalent, and makes it a prerequisite for advanced courses in "Empirical Research Methods," "Decision-Making Techniques for Librarians," and "Bibliometric Distributions." The catalog description for the latter course specifies the need for "facility with calculus and probability." None of the other schools uses the term "mathematics" in any of the course descriptions, except one which notes in its course, "Introduction to Information Science" (which is a prerequisite for advanced courses in Information Science, Automation, and Programming), that "No mathematical or scientific sophistication is assumed."

Some course work in statistics is offered, although only two of the schools make this a basic requirement for admission or the degree. One of these schools is the one which requires the course in Basic Mathematics for Information Science; statistical competence must be demonstrated by the students, who can fulfill the requirement by making a passing grade in that course or its equivalent. The other states:

The school has identified three specific competencies as essential for success in the academic program...[one of which is] statistical competence... The school requires evidence of statistical competence, normally provided by completion of a college level course with a minimum grade of C.

A third school requires that all students take a course in "Research Methods" which includes the use of packaged computer programs (SAS and SPSS) for statistical analysis; there is also an advanced course (primarily for doctoral students) which deals with "quantitative" and nonquantitative techniques. The school which imposes no specific requirements for its M.L.S. students does offer three courses in which statistics are studied: "Introduction to Managerial Statistics" (which is required for the M.S. in Information Management); "Advanced Topics in Research Methods," which includes

statistical methods; and a doctoral Seminar in Research Methods, which includes probability and statistics.

Use of Courses Outside the School

The interdisciplinary nature of library education is constantly referred to in the literature of libraries and library education. It follows then that one means for broadening the students' traditional academic skills or knowledge of other subject matters is through the use of "outside" courses.

While none of the schools requires course work outside the school, all but one of the catalogs reviewed mentions outside courses as a possible part of the students' program leading to the degree. One school notes that "specialization related to service in particular subject areas frequently requires course work in the department involved;" three others list specific, highly recommended courses in other departments for specific specializations in librarianship, and there are 5 instances of cross-listed courses (courses offered in both the library school and another department which carry full credit in the program of both schools). One school draws attention to two basic reasons (one practical and one more generally "liberalizing") for taking courses in other parts of the university:

- 1) to extend one's understanding of a subject or discipline in relation to the handling of specialized materials and provision of specialized library and information services, and
- 2) to extend one's knowledge of related disciplines and basic principles that can be of value in all types of libraries and information services.

Another school permits the election of outside courses to broaden one's background in the arts and sciences, to strengthen undergraduate preparation, or enlarge horizons in library-related fields.

Among the schools which do mention the outside option, four "encourage"

this option, while the other five indicate simply that one "may take" such courses. In both contexts, the selection is done with the counseling and approval of a faculty advisor, and in all cases, there is a minimum number of course hours that must be taken within the school which effectively limits the number of "outside" courses to two or three in the total which may be applied towards fulfillment of degree requirements. Courses in business, education, public administration, computer and communication technology, and managerial accounting predominate among the departmental specialties outside the school which are permitted. This suggests that a practical rather than a "liberalizing" purpose is the primary criterion for the adviser approval, but at least one school mentions courses in philosophy, history, English, art, sociology, and Latin as possibilities relevant to different kinds of specialties.

As was noted above, one device for promoting access to outside courses is the practice of "cross-listing." Through this procedure, a course offered (let us say) in the Computer Science Department is given a Library Science number as well, is listed in the school's catalog along with the regular course offerings of the library school, and treats the credits thus earned as library science credits. This makes certain outside courses more readily accessible, and provides some flexibility in the limit placed on outside courses which may be applied to the requirements for the degree. Five of the schools in the sample had such cross-listings in their catalogs, using a joint number with the schools, departments, and other academic units in Computer Science, Education, History, Business, Communications, Journalism, Music, Linguistics, Speech, and Behavioral Sciences. Such offerings avoid the duplication of material already available on campus, and guard against the interpretation that the school presents watered-down content

(statistics-for-librarians, instead of statistics). This kind of cross-listed course is frequently taught by a faculty person who holds a joint appointment in both departments, with his or her salary supported by the two departmental budgets.

In many cases, however, subject matter which is available elsewhere in the university is also offered in the Library School, oriented to its specific library and information science applications. It does not necessarily follow that such courses are watered down to accommodate a lower standard than the subject department would permit. In many cases, admission into courses in other departments cannot be guaranteed, not because interdepartmental registrations are frowned upon, but merely because many courses, which are essential to a department's own students, are fully subscribed, and students outside the discipline may be denied admission in order to control class size for maximum teaching effectiveness. In other cases, courses are shifted at the last minute to accommodate needs in the subject department, leaving the library student without access to a course planned as an essential part of his or her program. And in many cases, the slant or orientation of the course is so highly specialized that its relevance to library applications is limited.

This combination of needs - for general principles specifically applied to the library context, and scheduling of courses to assure their availability - accounts for a great number of courses in the library school dealing with principles of administration, management, data processing, computer skills, audio-visual materials, systems analysis, statistics, and even basic mathematics for information science. The appointment of non-librarians to the faculties of library schools and the use of adjunct instructors to supplement the regular teaching staff are familiar devices for

assuring specifically qualified teachers of these kinds of cross-disciplinary subjects. At least one school in the sample is dedicated (by name) to Information Studies, with no mention of libraries or librarianship in its title, * offering courses that are library-related but not always library-focussed. It is highly probable that in the future many more will become the primary department in the parent institution to deal with information retrieval, records management, and computer programming in all their practical aspects, not just those related to library services. Already, many of the schools place their graduates in non-library environments and announce in their catalogs that career prospects include this wider market.

Use of Adjunct Faculty. All of the schools in the sample supplement their regular full-time faculty through the appointment of practitioners or other subject experts to teach a limited number of special courses in their own fields of expertise.

It is clear from the materials submitted that adjunct faculty are pretty much restricted to the teaching of highly specialized and/or practically oriented courses; they are not normally used to teach the core program or basic courses, or the general offerings of the regular curriculum. **

Traditionally, the courses which most frequently list an adjunct instructor are those which deal with special subject areas within the field of library practice, such as Music Librarianship, Archives Administration, Rare Book Collections, and Conservation Management; or advanced courses in the ad-

*One other major school outside the sample (Drexel) has within the past few months announced a similar title and orientation change.

**Normally, use of "outside" instructors for the basic courses is discouraged by the Standards for Accreditation because of the need for a full-time core of faculty persons to deal not only with the course as such, but with overall curriculum planning, review, and evaluation, and with student counseling and advising.

ministration of particular services taught by a practicing administrator. Among the schools in the sample, typical adjunct faculty members include staff from the university library on the home campus: the Associate University Librarian for Technical Services, the Head of Reference, the Rare Book Librarian, the University Archivist. But off-campus practitioners are also used where their experience coincides with the subject matter of the course: the director of the public library; the Executive Director of the American Library Association; a special librarian in a subject field relevant to the curriculum.

It should be noted that many universities consider the Director of the University Library to be officially a member of the faculty of the Library School. When, as frequently happens, he or she teaches a course in the school, the designation of "adjunct" is not used, although in actuality the purpose served is that of utilizing an expert practitioner for a course in his or her specialty.

As the schools increase their offerings in the areas of Information Science, both regular and adjunct faculty are being recruited from those who have the desired subject matter, whether they have a library science degree or not. An early precedent for this use of outside experts as formal members of the library school faculty was the appointment of social scientists, historians, and other non-librarians to the faculty of the newly created Graduate Library School at the University of Chicago in the late 1920's and early 1930's. The aim of the school, innovative at the time, was to introduce and foster research in librarianship; to get the research competencies the school needed, it was necessary to go outside librarianship. With the increase in the number of doctorates in librarianship since that time, the schools have been able more frequently to find qualified persons

from within the field. Nevertheless, a number of library school faculty who teach the information science and computer courses at the present time are information scientists, not librarians, and until a sufficient number of persons within the field have gained that expertise, this is seen as a decided strength of a school's faculty, guaranteeing quality control over this special course content.

Training in Other Professions

The ARL brochure calls for training in other professions (such as law, health, engineering, computer science, and the innumerable subspecialties of these fields). For the library schools, this is more related to recruitment than it is to curriculum. All of the schools are willing and often eager to bring into the library field persons with this kind of subject specializations. The hesitation to accept persons for whom librarianship seems to be a second choice is no longer as acute as it once was, unless the evidence is that the applicant has made a failure of his or her other field and turns to librarianship as an easy and unchallenging alternative. Those who bring a special subject expertise and see in librarianship a way to use it for constructive and professional ends are welcomed. The listing of this qualification as a desirable one in the ARL brochure testifies to the current openness to such applicants.

The other alternative for the student is to supplement the M.L.S. with a degree in one of these other fields, and there is enough support in the library literature for the idea that two master's degrees, rather than a master's and a doctorate in librarianship, is a preferred qualification for work in academic and research libraries to preclude any further discussion of the point in this report. Again, the faculty counseling aspect of

the library school curriculum provides for guidance into the second master's where the students' career goals suggest this would be desirable.

Five of the schools in the sample make available a joint degree with a relevant outside field, making it possible for the student to achieve the two degrees in less time than the two programs would require separately, and only a slightly longer period than for the M.L.S. alone. This is a promising alternative where circumstances permit. It requires, of course, that the students' undergraduate preparation fulfill the admission requirements of both the library school and the subject department. It also calls for a good working relationship between the two departments, and a carefully planned program of courses within the two programs which will satisfy the academic requirements for a degree in each of the fields. And finally, it demands careful, orchestrated cooperation between the two, to schedule courses in such a way that required content is available to the students in both schools, and that conflicting requirements and sequencing do not block access to needed content within the time span of the students' enrollment. These are difficulties, but they are not insuperable, and the results are well worth the effort.

Traditional Bibliographic Skills

The term "traditional bibliographic skills" is not defined in the ARL brochure. For purposes of this study, it is assumed that these cover the kinds of knowledge and skill that were basic to library practice even before the recent revolution caused by the application of electronic technology to library operations. For many years, there was fairly widespread agreement that library school graduates should know bibliography (in its sense of the Book Arts), sources of reference information, cataloging and classification, selection of materials, and library administration. In

other words, the traditional skills were related to general library functions, to which were then added the elective courses that defined individual specialties or more theoretical content.

These "traditional" skills continue to be, to more or less degree, essential to library service. The librarian must still be knowledgeable about 1) the nature of the materials with which the library deals, 2) the sources of information, 3) the organization of materials, 4) collection building, and 5) the administration and management of the library's services. This remains true even though the materials are no longer limited to the materials of print, the sources of information have expanded to encompass new formats and methods of access, and the organization of materials is accomplished through a variety of traditional and new means. The efficient and effective management of access to information in all of its forms still is the responsibility of graduates of the schools of library and information science.

It was assumed for this study that each school, by the "core" program it provides, is identifying what it now considers to be basic and essential. The "core," as the term is used by library educators, represents that part of the total curriculum which every student is required to take. There may be additional requirements for different specializations, but the core is seen as generally applicable to all specializations. The core assures that the graduate of a given school has the basic knowledge, information, and skills that identify the librarian, and lays the groundwork for the integration of those basics with the elected courses in the individual's chosen specialty.

It seemed reasonable, then, to begin this summary of "bibliographic" skills by analyzing the core programs of the nine schools. But comparison

of the core programs sounds simpler than it is. For one thing, one of the schools imposes no blanket requirements for students seeking the M.L.S. degree. This reduces the sample to eight schools. Among those eight, the number of required courses ranges from two courses plus one chosen among certain options (the pattern in two of the schools), to one-half of the entire program (nine specific courses in a total of 18 required for graduation). Two schools require five courses; two schools, three courses; and one has designed an omnibus "Block" of team-taught content which represents one-fourth of the total program of 48 hours.

Another complication is that different terminology is used by the schools to describe what often turns out to be similar content, whereas identical terms are sometimes found to carry different connotations in the minds of their users. And even when the overall content of the courses is the same, the amount of attention given to the different parts, and the interrelations that are explored among them, may vary widely.

Still, two areas seem definitely to be seen as core content for librarianship by all eight schools: 1) cataloging and classification, and 2) information sources and services.

Cataloging and Classification

One school requires two separate courses, one in descriptive cataloging and one in subject cataloging and classification. Others touch both aspects in a single course. "Form," "function," "structure," and "codes" are recurring terms in several different course descriptions. While only two schools specify Dewey and Library of Congress in the catalog description, other terminology ("use of classification schemes according to standard library practice," "basic practices and tools of descriptive and subject

cataloging") suggest that these two major classification schemes are introduced. Five of the schools indicate some attention to computerized processing, machine readable formats, or the online catalog; two mention both book and non-book materials. While the absence of the specific terms does not mean, of course, that no mention of these aspects occurs, in general the other descriptions suggest that the basic, standard principles, concepts, and rules are the backbone of the course. It is clear from the other listings in the respective catalogs that the core course in cataloging and classification is not only content that everyone should know, irrespective of specializations; it is also a foundation and prerequisite for further, more intensive and extensive course work for those who wish to make this their specialty. This is precisely the purpose of the core courses: to serve as an introduction which will be a sound base for further advanced study, while providing a basic understanding for librarians who specialize in other areas but should know what the relation of cataloging and classification is to their own areas of concentration.

Reference and Information Sources

All of the eight schools give extensive attention to reference sources and the processes of reference services, usually in the same course. Many of the course descriptions specify types of reference sources: trade, national and subject bibliographies, encyclopedias, dictionaries, bibliographic compilations, directories, while others use more generalized terms: "general and special reference works," "reference materials," etc. Five make specific mention of online data base services. Question negotiation and search strategy are specifically mentioned in three cases, "methods" of reference service in two others. Where one school emphasizes techniques, another stresses

"philosophy and principles underlying reference services" and definitely omits any mention of reference tools as such.

One school - the same one which devoted separate required courses to descriptive and subject cataloging - offers three required courses in the area of reference: "Basic Sources of Information;" "Comprehensive Bibliography;" and "Fundamentals of Bibliography," which deals with the "development and fundamentals of the several branches of bibliography: historical, physical, (analytical or critical, descriptive), enumerative or systematic; and the organization, control, and elements of bibliographical apparatus." This illustrates the varying ways in which a single term (in this case "Bibliography") may be used among the schools.

In most of the schools, the reference process (the reference interview, question negotiation, search strategy) is dealt with in the same course as the reference tools. In five of the schools, the combined sources-and-services course is a requirement for specialization in academic and research librarianship, over and above the general core course in reference tools. All nine schools offer additional courses in "The Literature of.." [a variety of special fields], either broadly defined (the Social Sciences, the Humanities, Science and Technology) or very specific (Law, Music, Gerontology, etc.).

Management and Administration

Attention to administration and/or management is given in required courses in seven of the schools, but the approach takes two forms. Two of the schools require that each student choose a type-of-library course, in which organization and management principles are specifically adapted to the type of library. One of the two schools permits credit toward the

degree for only one of this kind of courses; the other presumably permits the student to prepare for more than one. This latter option is one which students in today's tight market sometimes feel is a kind of insurance. Faculty counseling undoubtedly presents the case for greater depth in one specialty as against surface preparation in several, but students who have not yet had professional experience often do not have a strong commitment to a single type-of-library as such, even if they do have a commitment to library service as a career. First placement, which often reflects what is offered rather than what one might ideally prefer, frequently leads students to positions quite different from the ones for which they have planned their academic programs. This mismatch is a long-time phenomenon, and has been true even when the market was favorable. It is for this reason that so many library educators feel obliged to stress general principles and to encourage flexibility and openness to new ideas, as opposed to the hiring authority's frequent emphasis upon specific concentration on the requirements of the particular job to be filled.

The other approach, taken in five of the seven schools, is to offer a required course in general principles of management and administration applicable to "the library." The eighth school, like the school without core courses, offers separate courses in type-of-library administration, but does not require that one of them be taken.

It should be recognized that the faculty counseling which each student receives in planning his or her program quite probably leads to the students' taking a type-of-library course sometime during their period in the school even though this is not a formal requirement. We will discuss this below in relation to the specific specialization in academic and

research libraries (p. 28 below).

General Introduction to Library and Information Science

It came as a surprise to this reporter that some kind of general course serving as an introduction to the field of information services as a whole is offered by only five of the sample schools. In one school, a course titled "Introduction to Information Service" turned out to be the basic reference course; in another, although courses in "Introduction to Communication" and "Introduction to Information Science" are offered, neither is a requirement.

In one school, an introductory course in librarianship, plus another, "Fundamentals of Information Science," are both required. It may be useful to cite the course descriptions in both cases, because they identify very well the kind of content that I had assumed would be mandatory in any professional program:

Librarianship: The Institutional Setting and Professional Environment. Overview of the history, roles and functions in society of libraries and information centers, including their current status, structure, and research. Trends in administration, national planning, networks, standards, legislation, technology.

Fundamentals of Information Science. Scope of the information sciences and their relationship to libraries, information centers, information handling. Methods of systems analysis as applied to library operations; case studies of library systems, clerical operations and information retrieval. Survey of data processing equipment.

It is interesting to note that this school, despite the attention to trends in administration in the first course cited above, also requires a course in management of libraries.

Another school introduces the field through requiring each student to choose one among four options: "The Library in Society," "History of the Public Dissemination of Information," "Library History," and "History of Printing and Publishing." Two schools also include some attention to

history and the role of the library in the society it serves, as part of the orientation to library and information science. The fifth school offers an "introductory" course only to the information sciences, and while it includes some history of its development, a greater stress seems to be (judging simply by the amount of space given in the course description) on contemporary applications: "manual, punched card, microform, computer media." This presents an interesting contrast with the content presented by the school which offers four options, where the course in public dissemination of information notes "not covered will be modern electronic media." This school can afford this kind of restriction since it requires a course in "Computer Programming."

One device for giving students the broad view - a look at the totality of librarianship as a profession, rather than focussing on the separate tasks performed in libraries - is the use of a comprehensive examination which attempts to make the students explore the interrelations among the several courses and their place in promoting the larger issues of library service. Only three of the schools require the comprehensive examination as a way of integrating the student's total learning experience in the program. Five of the schools do not mention a comprehensive examination, while one makes a special point of stressing that no comprehensive examination will be given.

Other Required Areas

Collection building is a required subject in four of the schools, with a slightly different stress in each one. One offers a background of publishing and the book trade pertinent to acquisition departments, and stresses organization and administration of acquisition departments (a topic which is treated as an optional specialization in other schools). Theory and practice

of selecting and ordering are also discussed, as they are in the required course in one of the other schools. All four schools deal with all types of libraries, without focussing on any one specifically.

Two of the schools deal in the selection course with problems of censorship and intellectual freedom; some of the other schools present this in the context of the "library in society" segment in introductory courses. In all cases, including the course which stresses publishing and the book trade, books and other materials are stressed.

Research method is part of the basic requirement in only three of the schools, and in one of these, "The Role of Research" is one option in a choice of two, the other being "Principles of Management" - an interesting dichotomy. One school requires an introductory course to research methods used in library and information science, which includes the use of packaged computer programs for statistical analysis and the writing of a research proposal. This is one of the three schools which requires a master's paper for graduation. The other school requires its course in "Empirical Research Methods," the description of which reads:

Methodology and philosophy of science. Difficulties encountered obtaining valid evidence in the social sciences...experiment, interview, questionnaire and sampling. Problems of reliability and validity of tests.

The prerequisite for this course is another requirement, the only one of its kind in this sample: "Basic Mathematics for Information Science."

The two schools which require the research course also make the master's paper a requirement for the degree. The school which permits an option between the research course and the management course also permits the writing of a master's paper as an option. The one other school which requires a paper does not designate it as a research study but rather a

"specialization paper," and does not mandate a course in research methods.

To summarize: On the basis of mandatory content, it is safe to assume that graduates from all the schools will have had a basic introduction to organization of materials and to reference tools and services. All students will also have had, through the courses in these two areas, some introduction to the computer-based catalog and to online searching. It may not be quite so safe to assume that all will have had some introduction to the principles of administration, although it is highly likely that faculty counseling will lead the great majority of students into some kind of administration course sometime in their library school careers, either general in its approach or related to a specific type of library. Finally, it cannot be assumed that an overview of the totality of librarianship or an introduction to librarianship as a profession will be a required part of the students' preparation. While it is, quite probably, the hope of all educators that students will synthesize their total accumulated learning experiences into an integrated overview of the field of their study, not all of the schools presented evidence that they have deliberately introduced a curricular mechanism aimed at achieving this result.

It is not fair to characterize the students' total preparation, however, on the basis of required courses alone. In no school in the sample does the core make up more than half of the degree program, and in most cases it is a great deal less than this. What constitutes the students' learning experience outside the core is harder to pin down because it is subject to individual selection from a far larger menu of choices than can be encompassed during the normal matriculation period.

The kind of preparation a student will get who intends to make a career in academic or research librarianship can be estimated roughly, never-

theless, because of two features of library education. One of these amounts to a "second-level core" of courses specifically designated as required for those specializing in each of several different type-of-library or type-of-function fields. The field of academic and research librarianship is one of these in three of the schools in the sample.

The other feature, utilized in all of the schools in the sample, is the practice of assigning faculty counselors to each student, whose responsibility is to recommend, in the light of the individual student's goals, those courses most relevant to the chosen specialty. In the materials submitted by the sample, several of the respondents marked those courses which would be highly recommended under this less formally directive system for students specializing in academic and research librarianship. These, added to the courses specifically named in the more highly structured "second-core," give a fair overview of the library school content to which students in the academic specialty are likely to have been exposed in preparation for their careers.

Specialization in Academic and Research Librarianship

All of the schools in the sample can support a concentration in academic and research librarianship, whether they set aside a section of their catalog to list required courses in that specialty, or rely simply on a variety of pertinent courses into which a student will be guided through faculty counseling. Some place a greater total emphasis on other types of libraries; some prefer to deal primarily with basic principles, using type-of-library applications as examples within each course rather than as separate, dedicated courses. But all do offer subject content that can be applied to a "major" in the field with which this report is concerned.

An analysis was made of all nine catalogs to identify which areas may be designated as typical of the elements in the programs taken by those whose concentration is in the academic/research field.

One pattern, consistent throughout the entire group, is the provision of advanced and more highly specialized courses that expand and support the core areas of 1) cataloging and classification (organization of materials) and 2) reference sources and services. In other words, within the type-of-library specialty, all the schools recognize the demand for subspecialties by type-of-function.

Another area in which all the catalogs offer courses which support emphasis in the core is that of information science. This area is divided into three classes of courses: those which deal with general principles, those which deal specifically with the library applications of automation and the new technologies, and those which attempt to do both in each course. Data processing, computer programming, online bibliographic searching, library automation, information science, and similar terms appear in course titles or course descriptions throughout the sample. Where they are part of the description, they are often descriptive of content in courses covering a very wide range of processes, procedures, and services.

A third area available in all the sample schools is that of administration and management, dealt with in two ways: in a course in general principles, and in a course (or courses) in which the focus is on application of those principles to the particular type of library. As has been pointed out earlier, some of this is already represented in the core program in some schools, even in the form of the option to take the required course in administration in the special, type-of-library context. Where this is the case, non-core content builds upon the introductory material

in the core and pursues it in greater depth and specificity.

In addition to the general courses in administration, there are separate, full courses devoted to particular aspects of administration in the academic library: administration of the technical services in six schools; personnel administration (two schools); and, in one school each, separate courses in financial management and in public relations. A course in library buildings (or space planning) is available as a separate course in three schools. Collection development (including selection and acquisitions) is offered in five schools, and seems to me to fall properly under the heading of administration in the context of academic and research librarianship.

Administration of special subject or type-of-materials collections is also widely represented in the sample schools: archives and manuscripts (eight schools); medical and health sciences libraries (four schools); rare books (three); music (three); and law (one). These are separate courses, different in most cases from the bibliography courses in special subjects; together they make a package (often with additional advanced courses or tutorials available) for the student seeking that kind of subject specialization within the larger academic or research setting.

Finally, the area to which I have referred earlier as relating to the "totality" of librarianship is represented in most of the schools, through elective courses if not through the basic requirement. These deal, typically, with such subjects as the social role of the library, past and present; bibliography, in its McKerrow sense, not as an aspect of reference materials; and specifically, study of the book, including courses in publishing as well as the book arts. Another frequent area for identifying the broader framework in which libraries operate deals with general developments in the dissemination of knowledge (rather than of documents).

In this connection, the term "communication" becomes an indicator of an attitude or viewpoint in six of the catalogs. While the emphasis in some cases is on communication in the context of information theory (a course in "Interpersonal Communication" in one school is a case in point), in other instances its treatment suggests a very strong angle of vision. One school lists courses in "Science of Communication," "Problems of Communication," and "Communication among Scientists" as three separate, full-scale offerings, suggesting a specialty of some dimension. In other cases it is simply a buzzword for a particular medium, as in one school where "The Film as Communication" and "History of Visual Communication," in addition to a course in "Communication Media," would seem to indicate a special interest of a particular faculty member.

Responsiveness to Current Developments

The tension between the field and the schools often expresses itself in terms of the field's view that the schools fail to keep up with changes in practice, and the schools' view that the practitioners' complaints are based on their recollections of the courses that were given when they went through the program, not current offerings and approaches. As a rough and partial mechanism for examining the charges, the titles and course descriptions in the catalogs of the sample schools were reviewed to identify those which deal with the new technology and its implication for libraries, a topic that was not much in evidence twenty years ago.

To establish a basis for comparison, I turned to the Journal of Education for Librarianship and its directory of faculty members in the accredited programs and the subjects they teach. The JEL began publication in 1960, and in its first directory for the academic year 1960-61, the "new

look" was designated "documentation." This term was used in the titles of only seven courses in all 32 member schools in the AALS; and only one course forthrightly mentions the introduction of the machine: Allen Kent's "Machine Literature Searching." In 1961-62, C. D. Gull's "Electronic Information Systems" was added to the list. By 1963-64, ten courses for 35 accredited programs are listed under the term "information storage and retrieval," with "automation," "machine," and even "computer" making their first appearance in course titles.

In the present study, on the other hand, the nine sample schools list 76 courses which appear to be entirely centered on the computer and electronic information systems, with an additional 98 courses in which some attention is paid to electronic data bases, online searching, and other library uses of communication technology.

It is this latter phenomenon - the assimilation of the new technology into all courses where it is applicable - that is perhaps a more significant change than the absolute numbers. The addition of a course about the computer, offered as an elective and not integrated into the traditional or required courses, was a first step. It treated the library content separately, and helped to reinforce the view that library science and information science were alien cultures rather than members of the same family. Today the computer is treated as a natural tool for achieving many of the libraries' traditional goals and objectives. The perception of a need to have a course that will dispel the students' fear of the machine is fast disappearing; a large proportion of today's incoming students bring machine skills with them. The library schools' responsibility is now recognized as one of providing full opportunity to use all of the apparatus - traditional, new, and in the development stage - that relates to information handling.

The move to insert some reference to "information science" into the schools' titles, while partly a bandwagon phenomenon, is also a real reflection of changes in curriculum and outlook.

The schools vary in the amount and kind of attention they give to this computer-related content. The school which uses the term "information studies" in its title with no mention of libraries whatsoever, has five times as many courses devoted solely to information technologies as does the school with the smallest number of such courses in the sample. If we look at the total number of courses that deal with new technology, or in a combination of new and traditional content, the spread is from 35 courses in the information studies school to eight in the school with the fewest readily identifiable courses in the area. The average number of this kind of courses for all nine schools is a bit over 19; without the information studies school the average is 17.

These are rough figures; they are based solely on the terminology used in the course titles or course descriptions. It is likely that in some cases, if none of the buzzwords was mentioned, a course was not counted which does give some attention to this subject matter; it is also possible, in some instances, that more weight is given than should be where the terminology ("information systems") conveys the impression of a newer look than the content actually deserves. But by and large, the evidence is strong that the schools have not failed to keep up-to-date with new developments, at least as this responsiveness is reflected in attention to the new information technology.

To summarize: Putting together the core content with the available electives, one can see an overall pattern of preparation for academic and research librarianship. Organization of materials, concerned not only

with cataloging and classification but with a variety of approaches to making information available, is a major part; reference sources and services, which deals with interpretation and dissemination of information, is another of its major aspects. Combined with this, the area of administration receives considerable attention, in courses pinpointed for type-of-library, type-of-material, and type-of-user. Highly specialized areas of concentration are available in both cataloging and reference, through advanced courses or special bibliography courses. The impact of information science, and particularly the application of new technologies to library purposes, appears throughout the program, not only in courses directly related to information science but also in traditional library areas, where computer applications are dealt with as appropriate.

The emphasis on the philosophical and theoretical foundations of librarianship, which is often seen by practitioners as overemphasized by the schools, does get attention, but not - on the basis of course description and titles - to the elimination of the practical. A variety of methods for simulating the real situation, including actual participation in the "real" world through a practicum or field experience, is typical of most of the programs. To what extent a hiring authority would count the practicum as "experience" is hard to say. Role-play, in-basket, case studies and other such means for testing theory against "real" situations is mentioned frequently in the syllabi and course descriptions, but certainly would not meet the requirements of "experience" mentioned in the advertisements. Data-processing labs and other such practice in the use of the machines might do so. "Hands-on" appears to carry approved connotations, even in academe, whereas practice in polishing manual skills in any other aspect of library procedures carries no such cachet.

Highly specialized functions within the academic library - rare books, archives, conservation, or special subject libraries - are available in some schools, but not all. Special bibliography, however, covers a wide range in most of the schools.

The Expressed Needs of the Field

As one means for identifying the relevance of course offerings to the kinds of skills and qualifications wanted by the field, 39 advertisements in the "Positions Open" section of College and Research Libraries News for July/August 1983 were analyzed. Of the 39 advertisements, two were seeking a top administrator (director, head); 14, a middle-management person (department head, assistant department head); 9, a reference librarian; 8, a cataloger; and 6, a librarian in a special area (map librarian, microforms librarian).

Only in the last three categories were there positions which might be filled by recent graduates without experience; the administrators and middle-management advertisements all specified experience, either in very specific terms ("minimum of five years"), or in terms that allowed some leeway ("substantial," "some years"). In most cases, the experience was focussed firmly on the type of library and type of job advertised, often naming specifically the type and size of the library ("large academic") in which the experience has been gained, or the particular skills required ("two years experience as a microforms librarian" or "one year cataloging experience using LC and AACR2 rules").

All of the advertisements asked for an accredited master's degree in librarianship. This is interesting, in light of some of the questions that led to the initiation of this study. Apparently the field feels about library education the way Robert Maynard Hutchins described his university:

it's not very good, but it's the best there is. The practitioners may wish it were better, but they seem not to favor its abandonment.

The qualification most frequently mentioned (17 instances) was a knowledge of computer technology and its application to library operations, often with specific abilities noted: OCLC, RLIN, MARC. On the basis of the catalogs analyzed for this study, it would appear that most students should have a pretty good background in computer applications to library operations, and that those students interested in cataloging or reference would also have specific training in OCLC and MARC. On that score, there should be little complaint about the students' preparation for a first, professional-level position (assuming that the student had not only been exposed to the wanted concepts but understood them).

Next in order of number of mentions was: supervisory responsibilities (16 instances). Again, in terms of course content, any of the courses in administration for which I was able to see syllabi or outlines, listed the range of standard management skills: planning, organizing, directing, staffing, controlling, reporting, and budgeting. Again, where course outlines were available, there seemed to be considerable use of case studies and role-playing situations as well as readings, lectures, and written papers on the several aspects of management. Whether the classroom experience is enough to develop supervisory skills is, I suppose, debatable; what begins to be apparent here is that the personal qualifications of the individual applicant (as well as the skill of the individual instructor) may make a considerable difference, despite the exposure to the theory and principles of personnel management.

Planning responsibilities were next in importance (12 mentions). Since the advertisements seldom spelled out what is specifically meant by "planning,"

it is difficult to say whether the administration courses, even where based on PODSCORB and demonstrated through role-play and other practically-oriented simulations, actually meet the requirements of the specific position. As was noted above in relation to supervisory skills, application of principles in particular situations may depend as much on individual personal qualifications as on classroom and reading assignments.

Responsibility for bibliographic instruction received 11 mentions. This is an area less widely presented in the sample schools. Three of the schools do have separate courses dealing with bibliographic instruction, and presumably graduates of those schools who had taken those courses could have as good preparation as any general practitioner, and better skills than some long-time practitioners who had not undertaken this kind of responsibility. While "bibliographic instruction" is mentioned as part of other courses, the likelihood is that little real experience in its performance is possible along with the rest of the course content; the students would know about it, but might never have done it. They would at least be favorably disposed towards its inclusion among the librarians' responsibilities.

In most cases of positions where administrative skills were wanted, little more was said about the specifics. Strictly speaking, students who had taken courses in administration would be qualified on paper to undertake such responsibilities - and the schools' curricula offered the opportunity for more than one such course and in increasing depth of treatment. In most cases, as has been noted, both the necessary training and experience are sought by the hiring authorities. It seems reasonable to assume that students who have come through the schools in the sample, with course work in the courses in general administrative principles and the application of them to academic libraries and even to specific functions within those

libraries, would be prepared to gain a great deal from experience, and would achieve the combination of practical and theoretical knowledge that such advertisements are hoping to find.

In only four of the advertisements were communication skills (written or oral) mentioned. Presumably the field, like the schools, assumes that the library school degree, representing as it does the qualifications gained in undergraduate work as well as in the professional school, will supply the necessary preparation.

Foreign language competency was mentioned ten times; five in relation to a cataloging position, and five in relation to a reference position. It appears in none of the advertisements for persons in top administration. Clearly it is seen by the field as a tool skill, and the difficulty is that in many cases, facility in just any language does not meet the need. Japanese, Cyrillic are very special languages for which one modern, Western European language is no substitute. As has been noted, not all schools require a foreign language any longer, either for admission or graduation, and nothing in the survey of "Positions Open" suggests that it should be reinstated because the market demands it. The highly specialized nature of the language requirements for a specific position suggests that native speakers or students of languages should be recruited for education in librarianship, but that a blanket requirement of a language cannot be justified solely on the basis of the practical needs in the field.

Practical Skills. The heavy emphasis in the 39 advertisements at first glance seems to be on practical skills rather than on more subtle qualifications. The job notices describe what one does and what operational processes are applied; and in citing experience wanted, the same emphasis is apparent. How to do it - and specific knowledge - are heavily stressed:

application of computer technology...maintain automated equipment...provide leadership in implementation of computer operations...knowledge of microforms cataloging...prepares and files name/title cards...revises other catalogers' work...provides reference service, database searching...knowledge of US government documents... computer literacy...

The schools have several different ways of introducing the "practical" into the curriculum. Much of it is related to teaching method: the use of laboratory sessions for operational skills; the use of the case study; the use of in-basket assignments; the use of role-play have all been urged as a means for simulating reality in the classrooms. The use of practitioners as instructors or colloquium speakers is seen as an antidote to the presumably academic presentations of regular faculty members. An older method was simply to make the students go through the repetitious process of learning by doing over and over again - a teaching technique that is now pretty well discredited at the graduate or professional level,³ although there are back-to-basics advocates who look with nostalgic approval at those good old days.

One device, recently back in favor after a period of rejection, is that of the "practicum," "internship," or "field experience," which allows academic credit for "real" work in an ongoing library. Once popular (as "practice work"), this method was abandoned several years ago by most of the schools because it so frequently consisted of made-work, often of a clerical nature, which in a sense exploited the students by using them as a form of cheap labor to get rid of low-priority backlogs, and did not in the majority of cases provide a real professional experience, which was the intent of the program. Today's approach to the practicum builds in some academic controls, usually in the form of a faculty advisor together with an on-site supervisor from the host library, who must jointly agree

to a plan which specifies the kinds of varied experiences that the library will provide the student. The practicum, as a credit course, also requires attendance at some seminars in which practicum students exchange information about what they have learned and critique the experience as a guide to improvement for later practicum students. Some kind of written or other assignment related to the experience is usually also required to qualify the award of academic credit.

While all but one of the schools make the practicum available for credit, only one school makes it a requirement for all students. Another requires it only for school and media certification. The others allow it as an elective; in one case, only to those who have had no previous experience; in another, only if no remuneration is involved. This rather standoffish acceptance of the field experience may be a holdover of the concerns that led to the abandonment of practice work, but an even more important consideration is the amount of administrative and supervisory attention it requires of faculty members. Whether this amount of time and effort is justified if it takes the place of the research and publication that academics must produce for retention and promotion, and whether on-the-job experience really qualifies for academic credit at the post-graduate level in a university, are questions that have not yet been resolved in many of the schools. The school which does not use the practicum as part of its curriculum does encourage its students to seek part-time, paid employment in a library at some point during their academic careers, recognizing the value of "real" experience, but not seeing it as an appropriate part of an academic program.

Personal Qualifications. Many of the advertisements, on the other hand, add certain personal qualifications, and understanding as well as

manual skills, to the requirements of the position. Such statements as these also appear:

imagination, leadership, capacity to work effectively in a complex organization, and demonstrated administrative abilities...ability to adapt library procedures to changing needs of students and faculty members in an intellectually challenging environment... understanding of the mission of higher education...ability to represent the department with donors, support groups, and rare book community (this was one of the headships)... innovative librarian...skills in interpersonal relations...expected to provide effective and innovative leadership...

Some of these qualifications can, of course, be tested by the practicum situation. Some of them can, perhaps, be improved by training or by learning-by-doing. But this combination of intellectual as well as mechanical skills, of ability to deal with people as well as things, to innovate as well as apply codes and rules, suggests that the field is as much concerned with certain intangible personal qualities of applicants as with their practical training. Whether the schools accomplish the ends they have set for themselves may well be debatable, but their attempt to achieve a combination of practical and theoretical, of underlying principles as well as operational skills, seems to be an appropriate approach to the needs of the field and the goals of the profession.

Continuing Education

Mention should be made of the role that library schools play outside of their regular degree programs, in advancing knowledge and skills in academic and research librarianship. The need for continuing education of the professional person in any field is now taken for granted, and in librarianship the library school is one agency which provides opportunities for persons with the professional degree to extend or update their basic qualification.

For some of the schools, their publication programs may be considered a

contribution to the continuing education of professionals in the field, through such refereed journals as Library Quarterly and Library Trends, monograph publications, and conference and institute proceedings.

Six of the schools also make more formal study opportunities available beyond the master's degree. The usual formats for such offerings are colloquia, institutes, workshops, conferences, symposia, clinics, short courses, and special lectures. While these may deal with a variety of topics, many of them are of particular interest to those in research or academic libraries, and the heavy emphasis in workshops and clinics on data processing or other uses of the new technology makes them a useful way for librarians in all kinds of libraries to keep in touch with recent developments.

Less formal is the availability, to persons who already have an accredited degree, of registration in ongoing courses offered by the school in its regular program, often scheduled at an hour or place convenient for persons who are employed full-time. These courses, frequently seen as part of the university's Extension Services, may be taken in non-degree status which waives the formal academic requirements for degree-seeking students.

A problem for the schools in providing continuing education opportunities is the fact that recognition and adequate support are not readily granted to such special, non-degree programming by top administration in academic institutions. In a period of tight budgets, the university feels forced to put a higher priority on its formal degree programs than on update sessions for practitioners in the surrounding geographical area, and the non-tenured faculty member at promotion time is not likely to be able to submit participation in workshops or the conduct of short courses as a substitute for research and publication.

Special Certificate Programs. One activity that serves an important continuing education purpose and fits more logically into the formal pattern of programming in the university is the special certificate program leading to qualification somewhere between the master's degree and the Ph.D. Six of the schools in the sample offer such a degree program, open to holders of a master's degree in library science. In four cases, one to two years of professional experience beyond the award of the master's degree is also required.

The purpose of these programs is to extend or update professional knowledge, either through the introduction of new fields in library and information science or through the provision of advanced study opportunities in fields represented in the school's existing program. Three of the schools award the Certificate of Advanced Study (or Studies); other names for the qualification are Specialist Degree, Post-Master's Certification of Specialization, and Certificate of Completion of Graduate Curriculum in Library and Information Science.

The length of the program varies slightly from school to school but usually covers one academic year at least. Three of the schools require the applicant to submit a plan or proposed program of study, or a statement of career objectives, as part of the application procedure. All mention that a plan for the program, adaptive to the individual student's needs and interests, will be worked out in consultation with the faculty. Three of the programs require some kind of written report of study or investigation; one does not require it but offers credit for such a paper. In all cases, the design of the program centers around the student's identification of a problem or area on which he or she wishes to concentrate, and in all cases as much as half of the total registration may take place in other

units of the university outside the library school.

The Council on Library Resources has supported programs of such continuing education in library management in two of the schools in the sample: The University of Chicago's Certificate of Advanced Study in Library Management, and UCLA's six-week Senior Fellows Program in three successive summer sessions. Taught by regular members of the library school's faculties and others from relevant schools in the university, these programs benefit not only the Fellows selected for the formal program, but also the general teaching programs of the schools, whose faculty gain an added store of knowledge and information to enrich their teaching thereafter, and whose students have the advantage of contact and interchange with the practitioners who are selected for the fellowships and spend an extended period in the university environment. These programs certainly increase the total capability of the host school to deal with the kinds of problems with which this report is concerned.

Creativity and the Ability to Solve Problems

"Problem solving" is a widely used term in the course descriptions of courses in administration. It designates an approach and a teaching method as much as it does a tangible component of course content. It suggests that in the presentation of administrative principles and practices, the instructor poses particular kinds of administrative and communication problems to which the students must apply the principles in a "real" situation. The memorization of the names of the functions of management - planning, organizing, staffing, etc. - is not the goal, but the ability to translate these abstractions into the actions taken, and the reasoning involved, in finding a solution to the problem under review.

It is not possible from a reading of a school's catalog to establish whether these learning experiences occur as planned. The ability of the instructor to promote that kind of thinking among the students eludes a content analysis of the course outline. But it would be fair to say, I think, that the better schools do hold this objective for their professional courses, and that recognition of the objective is a considerable step forward from the rote feedback, on examinations, of the exact formulations in textbook and lecture.

"Creativity" is even more difficult to pin down, or even define. The word does occur in a syllabus on management presented by one of the schools, but the course it represents deals with the importance of creativity; it does not guarantee to make a creative person out of everyone who is enrolled.

It is in this context that the content related to presenting a view of the "totality" of librarianship becomes important. It is here that each student may be (may be) challenged to wrestle with the ethical problems of decision making in the library setting; to examine the impact of the past history of librarianship upon the new decisions now being required in the management of access to information; to think, independently, about the implications and consequences of different decisions in different circumstances; to break out of standard patterns when new (or even familiar) situations must be confronted; to deal with variables that do not fit the ideal models presented in the textbooks; to demonstrate an ability to get to the heart of difficult questions when one does not have all the pertinent data ready to hand, nor all the time needed to explore the problem as carefully as would be ideally desirable.

These are all practical problems as well as theoretical ones, but there is no guarantee that they will come up or be dealt with in the sample of

reality presented in the practicum, nor in the first day on the job, which has been used by some persons in the field as a measuring stick for validating the library school's program.

Creativity reflects individual personality characteristics as much as it does learning modules in the syllabus. The best that the schools can do is try to screen for individual traits that have been shown to be correlated with creativity - imagination, originality, motivation (the list is endless, and increasingly abstract). It has been suggested already in this paper that the schools do not know how to do this very effectively - but neither (I suspect) does anyone else.

The next best thing that the schools can do is, through course content and method of presentation, to try to excite within the students the desire to be creative; to challenge them to think, to explore, to go beyond the standard answers and solutions to more innovative and provocative ones. This sometimes happens when the individual student and the individual instructor come together at the right moment and in the right context to kindle the spark. It cannot be conjured up on demand, but circumstances can be set up to improve the chances of its happening. This is not very satisfactory as a solution to the general problem, but it is THE reward of teaching when it happens. It does happen occasionally in all teaching situations; one can only hope that it happens more frequently among those schools with carefully selected faculty members and thoughtfully planned learning experiences built upon a belief in the educational process as a drawing-out of the best from the student, rather than simply stuffing into the student a pre-packaged block of immutable content.

Conclusions

What conclusions can we draw from this selective overview of library

education and its relevance to the needs of academic and research librarianship? Given the limited sample, the miscellaneous nature of the data, and the indirection of much of the evidence, no definitive statements may be made that will resolve, once and for all, the conflict between the perceptions of the library educators and those of the practicing librarians about the central question. Nevertheless, the sample library schools have provided some interesting indicators which can, at the very least, suggest hypotheses for more rigorous research and perhaps some clearer picture of the areas in which educators and practitioners are more in agreement than they imagine.

As has already been apparent in some of the summary statements in preceding sections of this report, the data submitted by the sample schools has been filtered through the past experience and accumulated prejudices of this reporter. What follows is even more a personal interpretation. Given that limitation, this is the picture that emerges.

I. The schools are not all alike. Despite the complaints sometimes heard, from both educators and practitioners, that the accreditation standards impose conformity and stifle innovation, the areas of agreement among the programs are very few and occur at the most generalized level. It appears, for example, that the schools do not hold in common a single conception of what constitutes essential preparation for academic and research librarianship. There is no standard "core" among these nine schools; very little agreement on emphases in the general program; and a wide variety of optional offerings that provide considerable scope for individual program-building by the individual student. There is a certain unanimity that librarians should know something about the organization of materials, the kinds of information sources that exist, and the methods for retrieving information for

the benefit of users. But even these areas are treated in a variety of ways, with a wide range in the scope and depth of treatment of the topics. The days when one could count on all students having memorized their Mudge and their Akers are long since gone.

This lack of unanimity may seem to be a flaw in present-day library education, but it may - rather - be a true reflection of attitudes held by practitioners as well. One of the problems faced by educators is the fact that they hear a different version about what the field needs, depending upon which representative of the field is telling the story. For every administrator who wants a staff member with a better knowledge of basic theory, there is an administrator who wants practical knowledge, not abstractions. For every practitioner who wants the new staff member to come fully trained, there is one who wants a person with a broad perspective so that on-the-job training can be more effectively accomplished.

This suggests that somewhere among the library schools there is a program that reflects each of the many needs expressed somewhere in the field; the problem is to bring the particular hiring authority to the school which meets his or her specific preference. Meanwhile, if each school attempts to be responsive to every kind of demand, it may be weakening its own particular strengths and in the end not quite satisfying anyone. A stronger commitment to what its own degree stands for may be the best way for each school to serve its natural constituency (See IX, below).

II. The schools are not out of touch with current technological developments. The electronic revolution is definitely reflected in the course offerings of all nine schools, both in the form of new courses dealing with current developments and in revisions of traditional courses to encompass the application of the new technology where appropriate. In several schools,

enough courses exist to permit a second-core concentration in some area of computer science as applied to library needs; in the most traditional areas - like cataloging and reference work - no student can emerge from any of these programs without having worked with computer-based catalogs, online searching, bibliographic networks, and other such adaptations of technology to library operations and services. So much is this the case that, in attempting to characterize courses as oriented either to the tradition or to the future, this reporter discovered that courses dealing with library uses of the computer would virtually have to be categorized as "conventional" rather than innovative. The period is past in which the library schools tentatively and cautiously contemplated some introduction to the machine to allay student fears about it. In any of the sample schools, current additions to the curriculum dealing with electronic technology in the library would be at the level of advanced applications rather than at the introductory level. The basics are now taken care of, in part by the offerings of the schools and in part by the changes in the society itself which have already exposed incoming library school students to the machine and its general capabilities.

III. The traditional content is still a large part of a library school curriculum. The mix between the traditional and the new is one of the areas in which the differences among the schools begins to become apparent. While all schools give some attention to both, the proportion of emphasis given to the tradition-based and to the electronic-based content does mark strong differences among the approaches taken in the curricula. Enough has probably been made throughout the preceding parts of this report of the one school in the sample which quite self-consciously has established its special slant by calling itself a school of information studies, and in the structure of its curriculum carrying out this change. Its emphasis is on the preparation

of persons to pursue careers in information management wherever the opportunities arise, with no specific emphasis on libraries other than that they, along with many other agencies, are now in the information-handling business. Other schools in the sample design their programs to stress the continuity of the library tradition, and to view the new technology as supplying new means for reaching traditional goals of library service. It is a matter of emphasis as much as substance; of terminology as much as actual content. An interesting revelation from the review of the catalogs is that two of the schools in the sample, widely perceived by the field to have rich programs in the information science aspect of their programs, are also extremely strong in their offerings in the history of books, libraries, publishing, and the dissemination of knowledge as well as information.

It does seem to me that in the preparation of academic librarians, some schools will want to keep this combination of tradition and innovation. While many technical and special libraries may need to stress electronic sources over print and maybe even move to the paperless era of information storage and retrieval, the academic libraries will for some time in the foreseeable future still be expected to support research in traditional fields as well. Already some questions are being raised about what happens to historical study, to bibliographical researchers, to comparison of manuscript sources, and other such areas of academic concern if the machine and the printout replace the documents themselves. Large academic libraries are rich in collections of materials for special research which will not readily be jettisoned because other areas of study and other means to research them are now available to us. Knowledge is cumulative; the new is added to the old; it does not always dislodge and replace it.

The point I am making is that there are those among the practitioners who share the same concerns that concern the schools - how to reconcile the best of both the new and the old - and that some will favor one approach while others will favor another. The schools, taken together, may be able to meet those conflicting demands, but in the future it may not be possible for a single school to meet them all.

IV. This suggests that schools may find themselves identifying certain areas of special strength, and moving even farther apart from uniform consensus on the appropriate content and approach for a library school. As yet, there has been little evidence of a move to a single specialization to the exclusion of any other. But the comparative reading of the catalogs made very clear which schools were stronger in certain areas. Among these areas was that of preparation for academic and research librarianship. While all nine of the sample schools carry enough course content to prepare a student to assume professional responsibilities in that area, there are already differences in emphasis, and in extent of the choices available in subspecialties within the larger type-of-library specialty, to suggest that an applicant choosing a school has reason to make a careful comparison of programs rather than toss a coin. Even more, an employer seeking a desirable candidate for appointment might well consider a graduate of school X to be much more in tune with the institutions's program and aims than a graduate of school Y.

The problem for the schools is clear enough. The field is not so large, and the possibilities for employment so extensive, that a single school could survive on too narrowly focussed a specialty in a single type of library. The demands from the field are still so varied, and so specific in each instance, that a generalized program rather than a highly

specialized one still seems the most efficient way to meet the identified needs at the moment.

V. A key area of conflict between the schools and the field appears to be at the point of specific placement. For the library, the need is fairly clear-cut; a person is wanted to fill a specific slot, with specific duties and responsibilities calling for specific skills and qualifications. The school, on the other hand, is expected to prepare its graduates to go out prepared to apply for any number of different positions, even when they are all aimed at a single type of library. The employer is often much more concerned with the first-day-on-the-job kind of skills, whereas the school must be concerned with providing a base for a professional lifetime. It is true that today it is an accepted fact that changes will occur much more rapidly than in the past, and that a total career will require continuous learning and updating. Nevertheless, the school is expected to educate for a professional career, not to train for a specific job which could, in time, be a dead end. The graduate, as a result, often seems to know both too much and too little, from the standpoint of the hiring authority with a particular position in mind. Once the appointment has been made, the hiring authority's specific responsibility has been discharged. But once the appointment has been made, particularly if someone else has been appointed, the school's responsibility to its graduates continues to the next job opportunity, and the next, and the one after that. Out of this conflict grows one source of the continuing disagreement about the way the schools are meeting the needs of the field.

VI. The qualifications of the faculty are as important a part of the school's program as are its course offerings. This probably does not need

further belaboring; it is not only what is presented, but how it is presented that can make a difference in teaching effectiveness and fruitful learning experience. While experience in the field and mastery of a subject are desirable qualifications for a teacher, they are not always conveyed to the student in a manner that fully accomplishes the purpose. In the context of this study, the point is primarily that practitioners may need to become more familiar with who is on a library school's faculty, as well as what courses are taught, in order to evaluate the kind of preparation a graduate of that school is likely to bring to the job.

VII. The personal qualities of the students, before they are exposed to the particular program of education, are also an important factor. My conclusions about the role of the schools in screening candidates for admission have been based as much on long experience as on the evidence in the sample of school catalogs. What these catalogs provide is confirmation of observations made on accreditation visits and direct experience in library schools. The library schools do not do a notable job of identifying either the most promising persons or the ones least likely to succeed. Yet this is, presumably, a major purpose of a professional school in any field: the screening of candidates who will become the professional practitioners of the future. By and large, the library schools emphasize academic criteria almost exclusively; they focus on predictors of successful performance in the school more than in the field. The basic assumption is, of course, that there is a correlation, but that would be true only if, during the period of schooling, the weeding-out process were much more expert, and maybe even ruthless, than it presently is. Based on academic criteria, the predictions of passing-or-better performance in the school are reasonably accurate; few students fail

the program. The other criteria which have to do with performance on the job - ability to work with others, initiative, coping skills in crisis situations, motivation, independence of judgement, reliability - are often not tested in the classrooms or, where they are, the classroom situation is enough different from that of the work-place that insufficient grounds for prediction are available. It is not so much that the schools are unwilling to do the proper screening - although that may well be true in some instances - but rather that they do not yet have the tools to accomplish it very well. Particularly today, when reliance on subjective judgements is so easily subject to challenge, some of the intangibles that have been mentioned throughout this report would be very difficult to measure and justify in terms acceptable to all parties. These restrictions are apparent not only in the lenient administration of admission and retention of students in the schools, but also in the loose identification of wants and needs outside of the specific technical skills, in job descriptions from the field.

VIII. The emphasis upon experience in the position requirements does not necessarily mean a rejection, by the field, of the library school qualifications. The M.L.S. from an accredited program was mentioned in all the advertisements reviewed for this study. Obviously experience is an important qualification for positions of some responsibility and authority, but it is seen - or so I interpret it - as experience added to formal professional education, not in lieu of it. The basic principles learned in school are tested and perfected in practice. The value of practice is better appreciated and understood when seen in the light of principles learned in formal education. Not only the basic knowledge, but the attitudes, the socialization into the profession, are important to the continued learning experience that practice can provide.

It is because I attach such high importance to this aspect of professional education that I have remarked earlier about the absence, from some of the programs, of a curriculum component specifically designed to provide an overall view of the totality of the library profession. The thing that formal education can supply, which is much more difficult to attain through any other means, is the time to step back from the daily pressure of practice and to view the entire operation from a broader perspective. To teach the skills, but not explore the purpose for which the skills are employed, is a failure to utilize one of the most important strengths of the formal teaching experience.

IX. Finally, it seems evident to me that libraries in the field should keep more closely in touch with the developments in library education; at the least, it would be wise for hiring authorities to look carefully at the catalogs of the library schools to see what is being offered, who is teaching, and what aspects of the students' preparation are stressed. By the same token, it behooves the schools to state more clearly and forthrightly what their aims and objectives are, and how their programs are designed to meet them. The Standards for Accreditation urge this, and the schools are much better than they were in the past at putting this information into their catalogs. The catalog is meant to be a public statement, but the schools have tended to limit their distribution to those who express an interest in the program. They have not seen sufficient justification for taking on the considerable expenses of widespread mailings where an audience has not identified itself.

A degree from a school which offers an accredited program is only the first qualification. What the individual school's degree stands for is

certainly of equal importance. Since the schools do differ and since the schools are beginning to develop specialities and strengths which differentiate their graduates from the graduates of other schools, librarians who are adding to their professional staffs should make sure that what they want is represented by the particular degree the applicant holds. Moreover, since experience is so much a part of the graduates' preparation for further contributions to the advancement of the field, a closer relation between the field and the schools, with more frequent exchanges of information of mutual concern, could have an effect on the improvement of both professional education and professional service. The improvement of the service is why both of us are in the business.

REFERENCES

1. White, Herbert S. "Perceptions by educators and administrators of the ranking of library school programs." College and Research Libraries 42 (May 1981): 191-202.
2. Cummings, Martin. "Communication technology and the medical library." In An Information Agenda for the 1980's: Proceedings of a Colloquium, June 17-18, 1980. Chicago: American Library Association, 1981, p. 99.
3. White, Herbert S. "Defining basic competencies." American Libraries 14 (September 1981): 519-525.